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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Toshihiko Oba

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08/14/2006

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EXAMINER

PIERRE, MYRIAM

ART UNIT

PAPER NUMBER

2626

DATE MAILED: 08/14/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/673,360	Applicant(s) OBA, TOSHIHIKO	
	Examiner Myriam Pierre	Art Unit 2626	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 May 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 35,37-38,40-45,47-49 and 113 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 35,37,38,40-45,47-49 and 113 is/are rejected.
- 7) ☒ Claim(s) 49 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☒ Certified copies of the priority documents have been received in Application No. p11-037558.9.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Response to Arguments

2. Applicant's arguments filed 05/19/2006 have been fully considered but they are not persuasive. Applicant argues that there is nothing in any of the cited references that disclose or teaches the limitation that the speech recognition processor performs speech recognition in view of at least one of a physical state of the user and an operating condition of the prosthetic hearing device. Examiner respectfully disagrees. Rueda (6,157,727) teach a speech recognition process (Fig. 1 element 15) and in view of one physical state (hearing impairment, col. 1 lines 50-56) and an operating condition of the prosthetic hearing device (hearing aid to correct hearing impairment of the hearing aid user, col. 1 lines 54-56 and col. 3 lines 20-27). Thus Rueda does teach the limitation that the speech recognition processor performs speech recognition in view of at least one of a physical state of the user and an operating condition of the prosthetic hearing device.

3. Claims 35, 37-38, 40-44, 47-48, 51, and 113 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rueda (6,157,727) in view of Kupiec (5,500,920).

As to claim 35, Rueda teaches

A prosthetic hearing device (hearing aid, col. 2 lines 56-60) comprising:

a sensor for detecting a speech (microphone, col. 3 lines 1-10);

a speech recognition processor that performs speech recognition on the detected speech (col. 3 lines 23-26);

wherein the speech recognition processor performs speech recognition in view of at least one of a physical state of the user and an operating condition of the prosthetic hearing device (col. 1 lines 53-56);

an output device (output transducer, Abstract) that outputs generated speech to the user
a speech generator (speech recognizer and processor, Fig. 1 and).

Rueda does not teach a speech generator for understanding the semantic meaning detected in speech.

However, Kupiec does teach a speech generator that analyzes results of speech recognition to comprehend a semantic meaning in detected speech transforms to detected speech into speech having a speech form assistive in understanding the semantic meaning in the detected speech (col. 3 lines 45-65).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to implement's Kupiec's semantic recognition into Rueda's speech generator system that would understand the semantic meaning because this would allow disambiguation of co-occurrence information, (Kupiec, col. 2 lines 6-7 and 39-40).

As to claim 38, which depends on claim 35, Rueda teaches
A prosthetic hearing device wherein the speech recognition processor transforms detected speech in view of at least one of a an operating condition of the prosthetic hearing device and a purpose for use of the device by the user (language translation, Abstract and col. 3 lines 20-29).

As to claim 40, which depends on claim 35, Rueda teaches wherein the speech generator transforms the detected speech by adding thereto a modifying language (language translation, Abstract).

As to claim 41, which depends on claim 35, Rueda teaches wherein the speech generator reproduces a speech previously produced when it determines the results from the speech recognition that it is necessary to reproduce the previously produced speech (col. 3 lines 1-10 and 20-27 and col. 1 lines 1-24; necessary storing information, thus able to reproduce it via speech generator)

As to claim 42, which depends on claim 35, Rueda teaches wherein the speech generator reproduces speech previously produced when it determines from the result of the speech recognition that it is necessary to reproduce the previously produced speech (col. 1 lines 1-10 and 20-28).

As to claim 43, which depends on claim 35, Rueda teaches the speech data generator controls an output rate of the speech data (col. 3 lines 20-28).

As to claim 44, which depends on claim 36, Rueda teaches

the output device outputs the speech using a sample speech data synthesized by the speech generator (col. 3 lines 1-10 and 20-27; necessary in the translating process is a speech synthesized from a speech generator).

As to claim 47, which depends on claim 35, Rueda teaches the speech generator generates the speech that summarizes the detected speech (col. 3 lines 1-10 and 20-27).

As to claim 48, which depends on claim 35, Rueda does not teach a display.

However, Kupiec teaches a display, wherein the speech generator displays on the display an image associated with the semantic meaning in the detected speech (col. 2 lines 25-30 and lines 38-41).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to implement Kupiec's displaying of semantic meaning into Rueda's speech processing system, because this will allow the user to view the preferred hypothesis. (Kupiec, col. 2 lines 25-30 and lines 38-41).

As to claim 51, which depends on claim 35, Rueda teaches wherein the sensor selectively detects a speech necessarily from a specific speech source (col. 1 lines 1-10 and 20-27).

As to claim 113, Rueda teaches

A prosthetic hearing device (hearing aid, col. 1 lines 56-60) comprising:

a sensor for detecting a speech (microphone, col. 3 lines 1-10)

a speech recognition processor that performs speech recognition on the detected speech (col. 3 lines 23-26), wherein the speech generator transforms the detected speech in view of at least one of a physical state of the user and an operating condition of the prosthetic hearing device (col. 3 lines 20-29 and col. 1 lines 52-56, translation purpose)

an output device (output transducer, Abstract) that outputs generated speech to the user

a speech generator (speech recognizer and processor, Fig. 1)

Rueda does not teach a speech generator for understanding the semantic meaning detected in speech.

However, Kupiec teaches a speech generator that analyzes results of speech recognition to comprehend a semantic meaning in detected speech transforms to detected speech into speech having a speech form assistive in understanding the semantic meaning in the detected speech (col. 3 lines 45-65).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to implement's Kupiec's semantic recognition into Rueda's speech generator system that would understand the semantic meaning because this would allow disambiguation of co-occurrence information, (Kupiec, col. 2 lines 6-7 and 39-40).

4. Claims 37 and 45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rueda

(6,157,727) in view of Kupiec (5,500,920), as applied to claim 37, in further view of Yamaha Corp (JP 08116596 A).

As to claim 37, which depends on claim 35, Rueda teaches
a speech recognition generator (speech recognizer and processor, Fig. 1).

Rueda in view of Kupiec do not teach a speech recognition processor performing one of speaker recognition.

However, Yamaha Corp teaches speaker recognition (Abstract).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to implement the speaker recognition system of Yamaha Corp into the apparatus of Rueda in view of Kupiec, because an artisan of ordinary skill in the art would have implemented the speaker recognition system that would assist weakened hearing function especially due to old age (Yamaha Corp, Abstract and Advantage).

As to claim 45, which depends on claim 37, Rueda teaches
a memory that has stored samples of speech data (Abstract, necessary in translating process), wherein the output device outputs the sound speech data using sample speech data selected by the speech data generator from the memory (col. 3 lines 1-10 and 20-27; necessary in the translating process is a memory).

Allowable Subject Matter

6. Claim 49 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Myriam Pierre whose telephone number is 571-272-7611. The examiner can normally be reached on 8:30-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richemond Dorvil can be reached on 571-272-7602. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MP

07/30/06


RICHEMOND DORVIL
SUPERVISORY PATENT EXAMINER